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(72) Inventor: **Gilon, Chaim
18 Gelber Street
Ramat Denya**

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Inventor: **Zelinger, Zvi
16 Shlomo Zemach St.
Jerusalem (IL)**

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Inventor: **Byk, Gerardo**

**Horkenia 16-3
Jerusalem (IL)**

(71) Applicant: **YISSUM RESEARCH DEVELOPMENT
COMPANY OF THE HEBREW UNIVERSITY OF
JERUSALEM
46, Jabotinsky Street,
P.O. Box 4279**

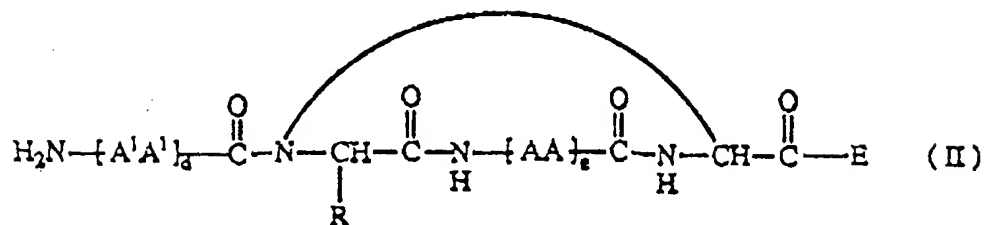
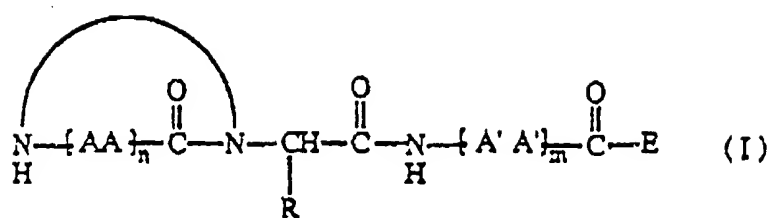
(74) Representative: **Allard, Susan Joyce et al
BOULT, WADE & TENNANT
27 Fumival Street
London EC4A 1PQ (GB)**

(54) **Backbone cyclic peptides, processes for their preparation and pharmaceutical compositions containing them.**

(57) The present invention is concerned with biologically active, backbone-cyclized peptides, especially substance P analogs to processes for their preparation and to pharmaceutical compositions containing them.

More particularly, the peptides of the invention are of general formulae (I) and (II):

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wherein the substituents and circled line are defined in the Specification.



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EUROPEAN SEARCH REPORT

Application Number
EP 92 30 9016

| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|---|--|---|---|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int.Cl.5) |
| O,X | CHEMICAL ABSTRACTS, vol. 114, no. 11, 18 March 1991, Columbus, Ohio, US; abstract no. 102801b, BYK.G. ET AL. 'A new route to prepare conformationally restricted cyclic peptides as demonstrated by a potent NK-1 selective substance P analog' page 826 ; * abstract * & PEPT.: CHEM., STRUCT.BIOL., PROC.AM.PEPT.S YMP., 11TH., 1990 pages 984 - 985 BYK G. ET AL. --- | 1,2, 33-36 | C07K7/22 C07K7/56 A61K37/24 |
| O,P, X | CHEMICAL ABSTRACTS, vol. 115, no. 19, 11 November 1991, Columbus, Ohio, US; abstract no. 208555k, GILON, CHAIM ET AL. 'Backbone-to-end cyclic tachykinins: a new approach to conformationally restricted peptides' page 1083 ;column LH ; * abstract * & PEPT.1990, PROC.EUR.PEPT.SYMP., 21ST, 1991 pages 404 - 406 --- | 1-3, 33-36 | TECHNICAL FIELDS SEARCHED (Int.Cl.5) C07K |
| E | CHEMICAL ABSTRACTS, vol. 117, no. 21, 23 November 1992, Columbus, Ohio, US; abstract no. 205809b, GILON C. ET AL. 'SAR studies of cyclopeptide: Effects of cyclization and charge at position 6' page 170 ;column LH ; * abstract * & PEPT.: CHEM.BIOL., PROC.AM.PEPT.SYMP., 12TH, 1992 pages 476 - 477 *meeting date June 1990* --- | 1-3, 33-36 | |
| -/-- | | | |
| The present search report has been drawn up for all claims | | | |
| Place of search MUNICH | | Date of completion of the search 20 February 1995 | Examiner Deffner, C-A |
| CATEGORY OF CITED DOCUMENTS | | | |
| X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document | | T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document | |



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EUROPEAN SEARCH REPORT

Application Number
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| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|--|--|--|--|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int.CI.5) |
| D,X | BIOPOLYMERS, vol.31, no.6, May 1991 pages 745 - 750 GILON C. ET AL. 'Backbone Cyclization: A New Method for Conferring Conformational Constraint on Peptides' * figures 4,8 * ----- | 1-3, 33-36 | |
| | | | TECHNICAL FIELDS SEARCHED (Int.CI.5) |
| The present search report has been drawn up for all claims | | | |
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| CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document | | | |